

# TRANSMITTAL FORM

MAY 31 2005

(to be used for all correspondence with the Patent Office)

Total Number of Pages in This Submission

17

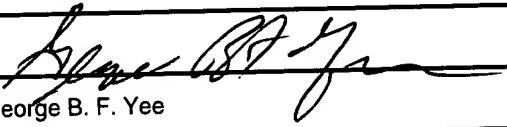
Application Number 09/910,153  
 Filing Date July 20, 2001  
 First Named Inventor Mizuno, Yoichi  
 Art Unit 2188  
 Examiner Name Paul A. Baker  
 Attorney Docket Number 16869N-029300US

## ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Terminal Disclaimer	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Request for Refund	this PTO/SB/21 Transmittal Form (1pg) Request for Certificate of Correction (2pgs) PTO/SB/44 Certificate of Correction (1pg) Copy of Notice of Allowance mailed 12/3/2004 (7pgs) Copy of Notice of Allowability mailed 2/15/2005 (4pgs) Copy of Index of Claims (1pg) Return Postcard
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> Landscape Table on CD	
<input type="checkbox"/> Reply to Missing Parts/ Incomplete Application	Remarks	
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.	

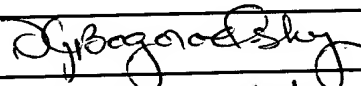
Certificate  
JUN 06 2005  
of Correction

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Townsend and Townsend and Crew LLP		
Signature			
Printed name	George B. F. Yee		
Date		Reg. No.	37,478

## CERTIFICATE OF TRANSMISSION/MAILING

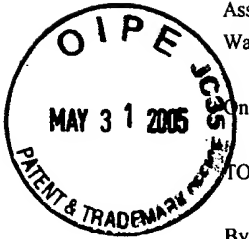
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Signature			
Typed or printed name	D. J. Bagorodsky	Date	5.26.05

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

PATENT  
Attorney Docket No. 16869N-029300US  
Client Reference NT0366US

Assistant Commissioner for Patents  
Washington, D.C. 20231



On 5-26-05

TOWNSEND and TOWNSEND and CREW LLP

By: [Signature]

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Yoichi Mizuno et al.

Patent No.: 6,880,058  
Issue Date: April 12, 2005

Serial No.: 09/910,153  
Filed: July 20, 2001

For: COMPUTER SYSTEM WITH STORAGE  
SYSTEM HAVING RE-CONFIGURABLE  
LOGICAL VOLUMES

REQUEST FOR  
CERTIFICATE OF CORRECTION  
PURSUANT TO 37 C.F.R. §1.322

Mail Stop CERTIFICATE OF CORRECTION  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1430

Sir:

The undersigned respectfully requests issuance of a Certificate of Correction to correct a mistake in the above-referenced Letters Patent, incurred through the fault of the Patent and Trademark Office. The requested correction is set forth on Form PTO 1050, submitted herewith.

The mistake by the Office is clearly disclosed in the record of the Office and is summarized hereinbelow:

On December 3, 2004, a Notice of Allowance (copy attached herewith) was mailed. The claims were amended by an examiner's amendment. A review of the file revealed that claim 19 had been inadvertently canceled by the examiner's amendment.

On or about January 19, 2005, the examiner was contacted. He confirmed that claim 19 was mistakenly canceled, and indicated that a Supplemental Notice of Allowance would be mailed.

On February 15, 2005, a Supplemental Notice of Allowance (copy attached herewith) was mailed, noting that claim 19 has been reinstated by examiner's amendment as claim 20.

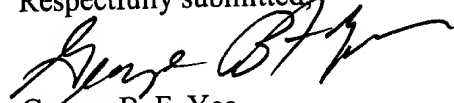
On April 12, 2005, the above-referenced Letters Patent issued.

On or about May 13, 2005, it was discovered that claim 20 was not included in the issued Letters Patent.

On May 17, 2005, the private side of PAIR was accessed and a copy of the Index of Claims was obtained (copy attached herewith), revealing the examiner indicated that claim 20 should be re-numbered as claim 6. The issued Letters Patent lists only claims 1-5.

Pursuant to 37 C.F.R. §1.322(a)(1), it is believed that a fee is not required in connection with this request for Certificate of Correction. Nonetheless, the Office is authorized to charge account number 20-1430 for any fees that may be necessary.

Respectfully submitted,

  
George B. F. Yee  
Reg. No. 37,478

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, 8th Floor  
San Francisco, California 94111-3834  
Tel (650) 326-2400 Fax (650) 326-2422  
GBFY/djb/cmm  
60501473 v1

# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,880,058 *132*  
DATED : April 12, 2005  
INVENTOR(S) : Yoichi Mizuno et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Claim 20 (renumbered Claim 6) has been omitted from the letters patent

Claim 6 should read as

--6. A computer system of Claim 5, wherein each of said plurality of computers searches an outer logical volume by using an outer LUN.--

MAILING ADDRESS OF SENDER: Townsend and Townsend and Crew LLP  
Two Embarcadero Center, 8th Floor  
San Francisco, CA 94111-3834  
Attn: George B.F. Yee

PATENT NO. 6,880,058

No. of additional copies: 10





UNITED STATES PATENT AND TRADEMARK OFFICE

16869N-029300US  
RCC/GBY, PA

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,153	07/20/2001	Yoichi Mizuno	16869N-029300US	4313

20350 7590 02/15/2005

TOWNSEND AND TOWNSEND AND CREW, LLP  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

EXAMINER

BAKER, PAUL A

ART UNIT	PAPER NUMBER
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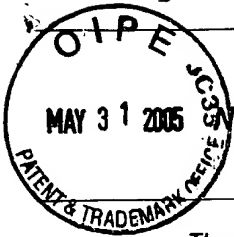
2188

DATE MAILED: 02/15/2005



**COPY**

Please find below and/or attached an Office communication concerning this application or proceeding.



## Notice of Allowability

Application No.	Applicant(s)	
09/910,153	MIZUNO ET AL.	
Examiner	Art Unit	
Paul A Baker	2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to telephone communication 1/27/04.

2. ☒ The allowed claim(s) is/are 1, 14-17 and 20.

3. ☒ The drawings filed on 20 July 2001 are accepted by the Examiner.

4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some\* c) ☐ None of the:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.

(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_

4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_

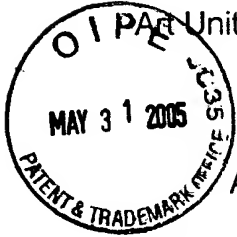
7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other \_\_\_\_\_

# COPY

Patent Unit: 2188



**COPY**

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with George Yi on 1/27/05.

The applicant brought to the attention of the examiner that the previous examiner amendment canceled claim 19 of claims presented via amendment 30 September 2004. After examination of the record the examiner has determined that the cancellation of claim 19 by the examiner was inadvertent, the following amendment is a rectification.

The application has been amended as follows:

(New claim)

20. A computer system of claim 17, wherein each of said plurality of computers searches an outer logical volume by using an outer LUN.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A Baker whose telephone number is (571)272-4203. The examiner can normally be reached on M-F 10am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (571)272-4210. The fax phone

Application/Control Number: 09/910,153


Art Unit: 2188

**COPY** Page 3

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
PB

  
MANO PADMANABHAN  
SUPERVISOR, PATENT EXAMINER 2/18/05

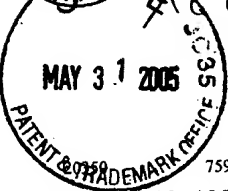




UNITED STATES PATENT AND TRADEMARK OFFICE

16869N-029300US

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# NOTICE OF ALLOWANCE AND FEE(S) DUE

**COPY**

EXAMINER	
BAKER, PAUL A	
ART UNIT	PAPER NUMBER

2188

DATE MAILED: 12/03/2004

**Issue Fee Due** 3/3/05

TOWNSEND AND TOWNSEND AND CREW, LLP  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,153	07/20/2001	Yoichi Mizuno	16869N-029300US	4313

TITLE OF INVENTION: COMPUTER SYSTEM WITH STORAGE SYSTEM HAVING RE-CONFIGURABLE LOGICAL VOLUMES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1370	\$300	\$1670	03/03/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

## HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

*TRE*



# UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office  
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,153	07/20/2001	Yoichi Mizuno	16869N-029300US	4313
20350	7590	12/03/2004		
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834				
			EXAMINER BAKER, PAUL A	
			ART UNIT 2188	PAPER NUMBER

**COPY**

DATE MAILED: 12/03/2004



## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 373 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 373 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

# Notice of Allowability

Application No.

09/910,153

Examiner

Paul A Baker

Applicant(s)

MIZUNO ET AL.

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 30 September 2004.

2. ☒ The allowed claim(s) is/are 1 and 14-17.

3. ☒ The drawings filed on 20 July 2001 are accepted by the Examiner.

4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some\* c) ☐ None of the:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.

(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_

4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material

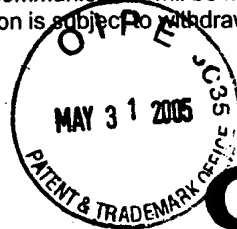
5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_

7. ☒ Examiner's Amendment/Comment

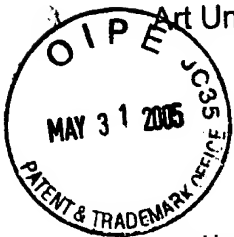
8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other \_\_\_\_\_.



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**COPY**



### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with George Yee, Reg. No. 37,478 on 24 November 20004.

The application has been amended as follows:

Replace claim 1 with:

1. A computer system with a storage system having reconfigurable logical volumes comprising:

a plurality of computers;

a storage system operatively coupled to said computers and comprising a plurality of inner logical volumes and an LU controller to control said inner logical volumes; and

a management console to communicate instructions to change a logical volume configuration of said logical volumes,

said LU controller comprising an LUN map designating an association among an outer LUN, one or more inner LUNs, and a computer ID, said outer LUN designating an outer logical volume that can be accessed by one of said computers, each of said inner LUNs designating one of said inner logical volumes whereby said outer logical volume



can be associated with one or more of said inner logical volumes, said computer ID designating one of said computers,

said LU controller responsive to an instruction to change said logical volume configuration by modifying said LUN map according to said instruction,

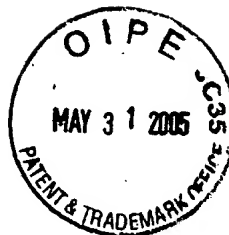
wherein prior to said LUN map being modified, a first outer LUN and a first computer ID are associated with a first inner LUN,

wherein subsequent to said LUN map being modified, said first outer LUN and first computer ID are associated with a second inner LUN different from said first inner LUN,

wherein said instruction to change a logical volume configuration includes said first inner LUN and a requested size,

wherein said LU controller is configured such that if a free storage area exists which has a size that is larger than said requested size plus the size of said inner logical volume designated by said first inner LUN, then said LU controller copies data stored in said inner logical volume designated by said first inner LUN to said free storage area, and rewrites said LUN map to correlate said free storage area with said first outer LUN, with said first computer ID, and with said second inner LUN, said second inner LUN being associated with said free storage area,

wherein said LU controller is further configured such that if said free storage area does not exist in said storage system, then said LU controller rewrites said LUN map to correlate said first outer LUN with said logical volume designated by said first inner LUN and with any free storage area in said storage system.



**COPY**

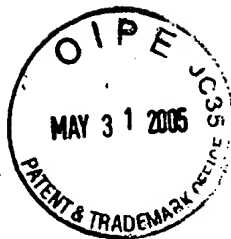
Cancel claims 18 and 19.

The following is an examiner's statement of reasons for allowance:

In regards to claim 1, none of the prior art of record discloses a system comprised of inner and outer LUNs, wherein upon a change configuration instruction, a second inner LUN having a size greater than or equal to the sum of a first inner LUN and a requested size is found and the contents of the first inner LUN are copied to the second inner LUN, wherein the LUN map is modified so that the outer LUN containing said first inner LUN is associated with said second inner LUN, in combination with the other specified claim limitations.

In regards to claim 17, none of the prior art of record discloses a system comprised of inner and outer LUNs, wherein upon an instruction to change a logical volume configuration is received, a free storage area having a size greater than or equal to the sum of a first inner LUN and a requested size is found and the contents of the first inner LUN are copied to the free storage area, wherein the LUN map is modified so that the outer LUN containing said first inner LUN is associated with a second inner LUN, wherein said second inner LUN is associated with said free storage area, in combination with the other specified claim limitations.

Application/Control Number: 09/910,153  
Art Unit: 2188



**COPY** Page 5

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A Baker whose telephone number is (571)272-4203. The examiner can normally be reached on M-F 10am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (571)272-4210. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

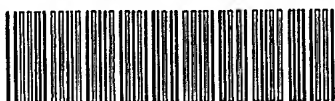
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PB

*Mano Padmanabhan*  
11/29/04

**MANO PADMANABHAN**  
**SUPERVISORY PATENT EXAMINER**

# Index of Claims



Application No.

09/910,153

Examiner

Paul A Baker

Applicant(s)

MIZUNO ET AL.

Art Unit

2188



✓	Rejected
=	Allowed

-	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date	
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